DOCUMENT RESUME

ED 316 071 HE 022 958

AUTHOR Hunter, Walter E., Comp.; And Others
TITLE Some Propositions about Teaching and Learning.
PUB DATE 88
NOTE 16p.
PUB TYPE Guides - Classroom Use - Materials (For Learner) (051)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Faculty; *College Instruction; Educational Principles; *Faculty Development; Graduate Students; Higher Education; *Learning Strategies; *Student Development

ABSTRACT

Various propositions on college teaching and learning, established by the professor and graduate students in a course at the University of Florida, are presented. The importance of both the professional discipline and teaching components is stressed. The propositions are intended for graduate students to use as a resource of basic information about the teaching-learning process. For each proposition there is a brief note and a reference to a bibliographic citation. Propositions are organized into the following groups and subgroups: General Assumptions (every person is different, basic tasks of education, true education is to love knowledge, natural potential for learning); College Instructors (academic culture, culture ignores teaching strategies, student adaptation, teachers teach as taught, teacher enthusiasm, challenge for instructors, and developmental stages of instructors); Students (students face many concurrent challenges, developing cognitive complexity, conditioning to fail, and intellectual growth); What Do We Know about Learning? (intellectual challenges, motivation instinct to mastery, novelty of reward, self-learning, effect of teachers on learning, students achieve at the expected level, small groups enhance learning, perseverance and success, mastery with time, best time for learning, and knowing key resources); and What Do We Know about Teaching? (the task of teaching, cooperation not competition, communicate objectives, objectives versus measures, varying instructional methods, myth of the normal curve, one level at a time, rethinking lectures, discussion alternate, and when students learn best). Contains 21 references. (SM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED316071

Some Propositions About Teaching and Learning

COMPILED BY

Dr. Walter E. Hunter

with

Beth Lilly Diane Kazlauskas

Linda Lewis John Stivens

Prepared for EDH 6305

College and University Teaching

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

University of Florida
Institute of Higher Education

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

INSTITUTE OF HIGHER EDUCATION

University of Florida

Gainesville

Fall 1988

BEST COPY AVAILABLE

HE 022 958

Preamble

College teaching has two important components. One is the professional discipline of the teacher or professor, who studies for many years to attain authority status in some small niche of a chosen discipline. The other component is teaching. Out of necessity, the teaching component is often neglected at the expense of the discipline. Academician K.P. Cross states:

> It has been said before and it will probably be reiterated for the next decade that no professionals have less training for their jobs than college teachers. But it is hard to understand why academicians, who value knowledge, take such perverse pride in maintaining their ignorance about the process of teaching and learning (Cross, 1976).

One hopes that the graduate student preparing for a career in college and university teaching will have already demonstrated mastery and competence in his/her discipline. In an attempt to supplement the less emphasized component - teaching, - the professor and graduate students enrolled in College and University Teaching at the University of Florida in Fall 1988 have assembled the following propositions on teaching and learning.

Although this paper will not establish scientific truth beyond the possibility of revision, knowledgeable educators, and current research generally support a number of propositions (generalizations) about college teaching and college student learning. The college teacher who bases his/her instructional procedures on these propositions is entitled to feel that he/she is on solid ground and not shifting sands!

These propositions are for other graduate students to use as a resource of basic information about the teaching-learning process. Those who want to pursue a proposition (or indeed pursue teaching), the references in the bibliography at the conclusion of the document will provide more information.

BEST COPY AVAILABLE

General Assumptions

Every person is different:

Highly simplified systems theory applies to education. All living things, including people, are open systems. Open systems are characterized by indefinite boundaries and indefinite flow of information (Kimbrough & Nunnery, 1983). In an open system:

EQUAL INPUT does not equal EQUAL OUTPUT
EVERY PERSON IS DIFFERENT!

*****

Basic task of education:

The basic task of education is to develop the student to his/her greatest potential, and in the process, take account of individual differences among the students (Bloom, 1968).

*****

True education is to love knowledge:

According to 19th century English author John Ruskin, true education is to make people not merely do the right things, but to enjoy them...not merely learn but to love knowledge. The instructor who realizes the real payoff in the learning experience is the change in the students behavior will understand content regurgitation as a ghost of an education. In so doing, an appreciation of learning and proven applications become catalysts of change of students who happen to be also in the process of content learning.

*****

Natural potential for learning:

Human beings have a NATURAL POTENTIALITY for learning. Most students can learn most of what we have to TEACH. Significant learning takes place when learners perceive that the subject matter is relevant to the learner. Furthermore, much significant learning occurs through doing and the learner participates responsibly in the learning process (Bloom, 1968).

*****

No sufficient predicting:

The general knowledge that psychologists and others interested in human development have about the effects of the environment on learned behavior will not always be sufficient for predicting the effects on scientific instructional methods or interventions on individual learners.

*****

College Instructors

Academic culture:

The academic culture today in college and universities places some constraint upon the education purposes (Sanford, 1967). The liberation of professors can be attained by:

-Having a greater awareness by the professors of themselves and what they do;

-Being familiar with alternate paths for attaining objectives;

-Recognizing that it is legitimate to be interested in students and gain satisfaction by working with them.

*****

Culture ignores teaching strategies:

Teaching strategies are not usually addressed by teachers at the college and university level. In such a culture, where terms for describing student development are not clearly defined and students may not be viewed as "people," the undergraduate teacher is denied a satisfaction of professional activity in not seeing desirable outcomes occur as a result of planned action. Development of both the teacher and student may be hindered by this culture (Sanford, 1967).

*****

Must students adapt?

Frequently teachers assume that the students must adapt to the established system of higher education. Few consider that the traditional college education is man-made and culture-bound. Perhaps the time has come for structures of the college education to change to meet the needs of students rather than the system (Sanford, 1967).

*****

Teachers teach as taught:

The majority of college and university professors model teaching methods they were exposed to when they, themselves, were students. Learning about instructional methods gets short-shifted as graduate students work diligently to master their disciplines. What improvements could come about if teaching techniques received only a portion of the time devoted to the study of one's discipline (Sanford, 1967)!

*****

Teacher enthusiasm:

The most successful teachers' evaluations relate learning effectiveness to teacher enthusiasm. Teacher attitudes with respect to their content field foster student learning (McKeachie, 1978).

*****

Challenge for instructors:

Colleges should be public learning facilities where all students are afforded the opportunity to learn, not flunk out (Shores, 1970). The challenge of instructors is to use all of their enthusiasm on their content and to consciously apply learning principles documented as being successful to reach and effect change in the second, third, and fourth quartiles of students ranked by former achievement standards (Sanford, 1967).

****

Developmental stages of instructors:

College teachers pass through distinct developmental stages (Sanford, 1967):

-Sense of competence in the discipline;

-Self-discovery--the personality is expanded by giving attention to other abilities, interested, and aspirations;

-Discovery of others--genuine relationships are cultivated with other people.

*****

Students

Students face many concurrent challenges:

The college student faces many concurrently challenges, some of which may preoccupy the student and make the student less involved in the classroom learning process (much to the chagrin of the instructor!) Developing intellectual competence is one of many tasks facing the college student in young adulthood. Managing emotions, developing autonomy, developing meaningful interpersonal relationships, developing purpose, and developing integrity - each of these tasks often becomes sources of worry and preoccupation for the traditional age student. When a student becomes overwhelmed with any one of these, he/she may not fully participate in the learning process so dear to the instructor (Miller, 1982).

*****

Developing cognitive complexity:

College students develop cognitive complexity through a hierarchical sequence of stages which affect their ability to absorb and synthesize knowledge and think abstractly. Beginning with the simplistic or absolute stance, students progress through four catagories or stages of intellectual and ethical development. The student's idea about the nature of knowledge determines how he/she perceives the role of the teacher and his or her own role as learner. Growth, or movement from one stage to the next, comes about as the student repeatedly comes into contact with ideas or information that does not fit into the student's own assumptions. This cognitive dissonance propels the student to accommodate or reject the new information. Accommodation forces growth; rejection brings about development delay (Perry, 1970).

*****

Conditioned to fail:

Many students experience so much criticism, failure, and discouragement that their self-confidence, level of aspiration, and sense of worth are seriously damaged. The students who see themselves at their worst in school are likely to place little value on study and to seek a place of importance outside of the academic setting. When students have too little success, they are conditioned to failure and they may turn their anger outside toward society and inward against themselves.

*****

Intellectual growth:

Growth--including intellectual development--occurs when students are involved in activities or tasks which provide information, demand different behaviors, and provoke introspection. Five major experiences or tasks or situations that can facilitate this growth include (Chickering, 1981):

-engaging the student in making choices;

-provoking interaction with diverse individuals and ideas;

-involving students in direct and varied experiences;

-encouraging students to solve complex intellectual and social problems without demands for conforming to an authority's view;

-encouraging the student to ask for feedback and making objective self-assessments.

*****

What Do We Know About Learning?

Intellectual challenges:

Students are prompted to think whenever they encounter an obstacle or intellectual challenge which interests them. The process of thinking involves designing and testing plausible solutions. It is useless to command people to think; they must feel concerned and eager to solve a problem or remove an obstacle. Perhaps the best way to help students think is to present a problem or concept in numerous and varied ways - contrasting examples - in order to stimulate each student to formulate solutions or applications within the students' own mind (Rivers, 1967).

*****

Motivation instinct to mastery:

The probability of mastering a given behavior is increased when the learner is motivated to master that behavior. Motivation refers to intrinsic conditions variously described as wishes, desires, needs, drives, which energizes, activates, moves directs, channels behavior (Bloom, 1968). Memory and learning are closely related to motivation. A student needs to be motivated toward the goals of the course.

Some motivators include (McKeachie, 1978):

Achievement - Students are motivated to achieve if they think they can achieve;
Affiliation - Students want to be liked;
Competence - Students get pleasure from a job well done;
Curiosity - Students enjoy being stimulated by new things;
Grades - Grades are important to students;
Teacher - The teacher is a model and, as such, a motivating instrument.

*****

Novelty of reward:

Providing opportunity for fresh, novel and stimulating experiences is a kind of reward which is effective in both conditioning and learning. A sense of satisfaction which results from achievement is a special kind of reward. This reward has the greatest transfer value to later life situations (Rivers, 1967).

*****

Self-learning:

Significant learning can only take place when learning is self-initiated, self-appropriated, and self-evaluated. Intervention by others is ineffective without this direct self factor (Rogers, 1969).

*****

How teachers enhance learning:

Learning is greatly enhanced when a teacher (Walter E. Hunter, personal communication, December 1, 1988):

-makes sure that each student know why it is important to learn the material which comprises the course;

-communicates, in writing, the goals and specific objectives of each unit of instruction;

-takes each student where he/she is and provides learning experiences tailored to his individual needs;

-through the use of media, incorporates a variety of stimuli;

-stands accountable for student learning;

-teaches without doing most of the talking;

-uses tests to assess teaching rather that to categorize learners;

-employ criterion referenced evaluation in grading learners;

-provides a procedure for retesting for mastery without penalty;

-makes sure that students learn enough to earn an A or a B;

-systematically tries to ascertain how students feel about the course and how it is being taught;

-is genuinely interested in treating each student as a developing human being;

-know that a student's attitude with respect to the course is the most important variable related to course achievement;

-defines learning in the broad context of development of human talents.

*****

Students achieve at the expected level:

Students often achieve at the level expected of them: final grades tend to be distributed according to a self-fulfilling prophecy of sorting students (Bloom, 1968).

*****

Small groups enhance learning:

Learning can be enhanced when small groups of students meet regularly to go over difficult points of the learning process. This is most effective in a non-competitive atmosphere, when there is no chance of gaining a special advantage over others. Cooperation among group members is key (McKeachie, 1978).

*****

Perseverance and success:

Perseverance is related to attitudes toward and interest in learning. More time is usually spent on the tasks from which the student finds reward. Evidence of success can increase perseverance in learning (Bloom, 1968).

*****

Mastery with time:

Mastery in subjects is possible for most students, given the appropriate kind and quality of instruction and time to successfully complete a given task. Time to master a topic - not achievement within a circumscribed period - is the appropriate variable for instruction (Bloom, 1968).

*****

Best time for learning:

What is learned is most likely to be available if it is learned in a situation much like that in which it is to be used and immediately preceding the time when it is needed. The best time to learn is when the learning can be useful. Motivation is strongest then and forgetting is not a serious problem. Learning - forgetting - and learning again is not an efficient procedure (Rivers, 1967).

*****

Knowing key resources:

Learning in college is only partly tied to classroom experiences. "Much of education is learning how--to learn, cope, lead, follow, solve problems, make decisions, relate to others, handle stress, and otherwise effectively function in an increasing complex world" (Miller, 1982). College instructors would be wise to learn about the campus resources and key resource people whose jobs are to consult with faculty, teaching assistants, and students to maximize the college experience. Instructors cannot leave to chance that the students will learn these essential life skills through classroom experiences alone (Miller, 1982).

*****

What Do We Know About Teaching?

The task of teaching:

The task of an excellent teacher is to stimulate ordinary people to unusual effort (Cross, 1984). It is not to identify winners but to make winners out of ordinary people. This does not mean that by demanding unusual effort, the instructor is fulfilling the requirement of an excellent teacher. Instead, it conveys the need to earn true student respect by motivating, not demanding, unusual effort.

*****

Cooperation, not competition:

Teaching efforts should be concentrated on bringing as many students as possible to the desired mastery. Cooperation, not competition, is the preferred motivation for learning (Bloom, 1968).

*****

Communicate objectives:

Objectives are the basic building blocks of instruction. Course objectives should be communicated to students as early as possible and the achievement of these objectives must be evaluated. It is through these that the instructor communicates a specific set of expectations to students. In this manner, learning is encouraged. Instructors must maintain a focus in their instruction to make learning achievable. Often teachers disguise the course content and subject matter making the student guess what is important. Foremost in the instructor's mind are well defined objectives that students and instructors are held accountable for. Learning experiences then become the terrain to be covered in the pursuit of these outcomes (Walter E. Hunter, personal communication, December 1, 1988).

*****

Objectives v. measures:

When there is a discrepancy between the real objectives and the tests that measure achievement, the latter becomes the main influence upon the choice of subject matter studied and study methods used (Walter E. Hunter, personal communication, December 1, 1988).

*****

Vary instructional methods:

To meet students at various learning comprehension abilities, the instructional material should be varied (e.g. textbooks, audiovisual methods, laboratory sessions). The goal is to improve the quality of instruction. Students should not be locked in to just one method; they need to realize alternatives are available to maximize their own learning (McKeachie, 1978).

*****

Myth of the normal curve:

The normal curve is the distribution arising from random activity. Teaching is done with a purpose, and so should produce a very different distribution of student achievement. It is estimated that if a students are given the kind and quality of instruction that suits their needs plus time to learn, 95% of students would be able to master the content of a curriculum. The closer the grade distribution to that of a normal curve, the less successful our attempts at education have really been. Thus, the distribution of achievement will <u>not</u> be normal.

*****

One level at a time:

Subjects should be broken into smaller units of learning so that each part can be mastered, thereby increasing students self-confidence. Material should be structured so it builds, and the next level is not attempted until the prior level is successfully mastered. Achievement at each level could be indicated through informal evaluation used as a part of the learning process, but not as a basis for grading (Bloom, 1968).

*****

Rethink lectures:

Lectures are widely used. Studies indicate, however, that attention increases from the beginning of the lecture for about ten minutes and then decreases. Students recall 70% of material in the first ten minutes and only 20% in the last ten minutes. To improve lectures, the lecturer can change in the environment by variations in pitch, intensity and pace of lecture, and by visual cues. Signposts such as "consequently," and "however" are used for transitions. Consider a variety of instructional presentation techniques or the perfect lecture may fall on deaf ears (McKeachie, 1978).

*****

Discussion alternate:

The use of discussion techniques to foster critical thinking for higher cognitive development and consequent learning. In experiments involving measures of retention of information after the end of a course, measures of problem solving, thinking, and motivation for further study show differences favoring discussion methods over lecture (McKeachie, 1978).

*****

When students learn best:

Research demonstrates that there is no measurable difference in final test performance related to distinctive methods of college teaching (Dubin & Taveggia, 1968). Learning takes place when the learner is self-motivated, and teacher intervention can not be effective without self-motivation. Students apparently learn best when:

-learning objectives are clearly stated;

-each student proceeds at his/her own pace;

-when a student does not move ahead until he/she has mastered preceding requirements;

-lectures and demonstrations are used for motivating students, not transferring critical information;

-responsibility for learning is transferred to the student;

-the required course competencies, not the instructor or the institution, become the obstacles to overcome.

*****

References

Chickering, Arthur W. (1981). The modern American college. San Francisco: Jossey-Bass.

Bloom, Benjamin S. (1968). Learning for mastery. Evaluation Comment, 1(2).

Cross, K. Patricia. (1976, March). The Instructional Revolution. Paper presented at the 31st meeting of National Conference on Higher Education, Chicago, IL.

Cross, K. Patricia. (1984). Societal imperatives: Need for an educated democracy. Paper presented at the National Conference on Teaching and Excellence, Austin, TX.

Dubin, Robert & Taveggia, Thomas C. (1968). The teaching-learning paradox. Eugene: Center for the Advanced Study of Educational Administration, University of Oregon.

Kimbrough, Ralph B. & Nunnery, Michael Y. (1983). Educational administration: An introduction. New York: Macmillan Publishing Company.

McKeachie, Wilbert J. (1978). Teaching tips: A guidebook for the beginning college teacher. Lexington, MA: D.C. Heath.

Miller, (1982). Student development assessments: A rational. In G. Hanson (Ed.), Measuring student development (pp.5-15). New Directions for Students Services: No 20. San Francisco: Jossey-Bass.

Perry, William G. (1970). Forms of intellectual and ethical development in the college years: A scheme. New York: Holt, Rinehart and Winston.

Rivers, Wendell. (1967). [Intellectual challenge]. Unpublished manuscript.

Rogers, Carl. (1969). Freedom to learn: A view of what education might become. Columbus: C. E. Merrill.

Sanford, Nevitt. (1967). Where colleges fail: A study of the student as a person. San Francisco: Jossey-Bass.

Shores, Louis. (1970). Library-college USA: Essays on a prototype for an American higher education. Tallahassee: South Pass Press.

Bibliography

Eble, Kenneth E. (1983). The aims of college teaching. San Francisco: Jossey-Bass.

Gagne, Robert M. (1977). The conditions of learning. New York: Holt, Rinehart and Winston.

Highet, Gilbert. (1950). The art of teaching. New York: Vintage Books.

Krathwohl, D.R., Bloom, Benjamin S., & Masia, Bertram B. (1956). Taxonomy of educational objectives: The classification of educational goals. New York: D. McKay.

Levine, Arthur. (1978). Handbook on undergraduate curriculum. San Francisco: Jossey-Bass.

Lewin, Kurt. (1948). Resolving social conflicts. New York: Harper & Brothers.

Parnell, Dale. (1985). The neglected majority. Washington D.C.: Community College Press.

Thorndike, Edward L. (1940). Human nature and the social order. New York: The Macmillan Company.